

Flowmeter

DP-65



OVERVIEW

Operation

- Target disc

Application

- Water treatment
- Fire protection systems
- Heating circuits
- Pharmaceutical industry
- Chemical industry

Features

- High reliability
- Low pressure drop
- Insensitive to soiling
- EX-version according to ATEX directive available
- Suitable for high temperature applications
- Product-specific scale at no charge
- Sandwich mounting
- For horizontal or vertical installation

Installation information

- The operating instructions for DP-65 must be observed!
- **Download: www.meister-flow.com**

OPERATING DATA

Operating pressure, max.

DN 100 - DN 300	PN 16
DN 40 - DN 80	PN 40

Pressure drop low pressure drop

Media temperature

Steel (coated)	-20 °C - 130 °C
Stainless steel (PTFE bearings)	-20 °C - 150 °C
Stainless steel (Bronze bearings)	-20 °C - 300 °C

For higher temperatures refer to thermal separation on page 5

Ambient temperature -20 °C - 80 °C

Measuring accuracy ±2,5 % of full scale⁽¹⁾

Viscosity max. 380 cP

Scale medium-specific, 120 mm,
various units e.g.: l/h, m³/h, kg/h

Display housing⁽²⁾

Material	Aluminum, coated
Ingress Protection	IP65
Display cover	Polycarbonate

Process connection Sandwich mounting

⁽¹⁾ Optional: ±1,6 % of full scale

⁽²⁾ Stainless steel housing optional, see page 5

Changed operating data apply to the devices in explosion-proof design according to ATEX directive!
The Operating Instructions for DP-65 and the associated Declarations of Conformity must be observed.
Download: www.meister-flow.com

MEASURING RANGES

Type	Measuring range for H ₂ O at 20 °C						
	DN	m ³ /h	m ³ /h	m ³ /h	m ³ /h	m ³ /h	m ³ /h
DP-65	40	0,8 – 4	0,8 – 6	1 – 8	2 – 10	3 – 16	
DP-65	50	0,8 – 6	1 – 8	2 – 10	3 – 16	3 – 25	
DP-65	65	2 – 10	3 – 16	3 – 25	4 – 30	5 – 35	6 – 40
DP-65	80	2 – 16	3 – 25	5 – 40	6 – 45	8 – 50	10 – 60
DP-65	100	5 – 40	8 – 60	10 – 80	12 – 90	15 – 100	
DP-65	125	8 – 60	15 – 100	15 – 120	20 – 135		
DP-65	150	15 – 100	20 – 160	25 – 200	40 – 220	50 – 250	
DP-65	200	20 – 160	30 – 250	40 – 350	50 – 400		
DP-65	250	25 – 200	50 – 400	60 – 500	80 – 600		
DP-65	300	30 – 250	50 – 400	80 – 600	100 – 800		

MATERIALS

refer to table on page 3

OPTIONS

See pages 5 to 9

Thermal separator

Stainless steel housing

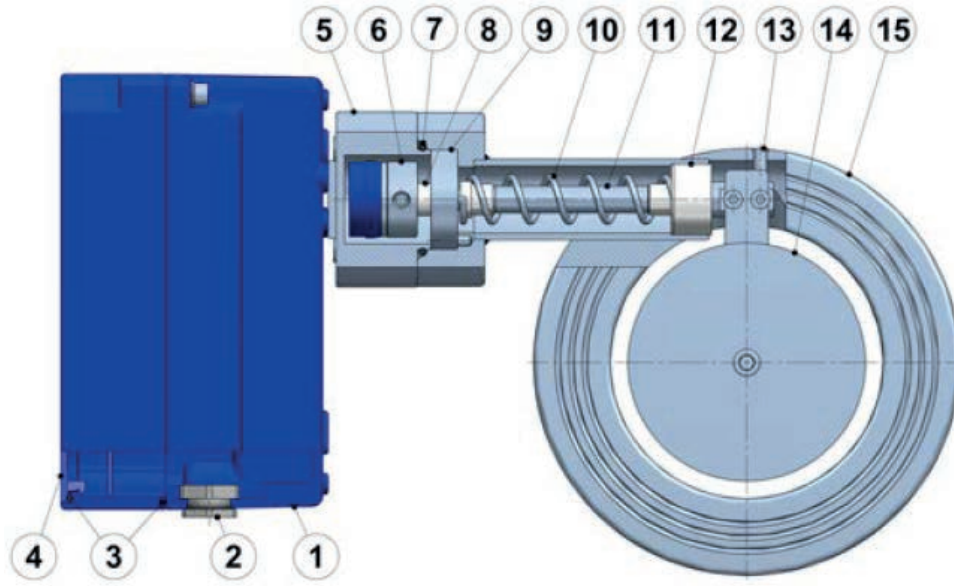
DP-AMM Microswitch

DP-AMD Inductive contact

1 or 2 adjustable limit switches

TH7 / TH7T Transmitter

ASSEMBLY DRAWING

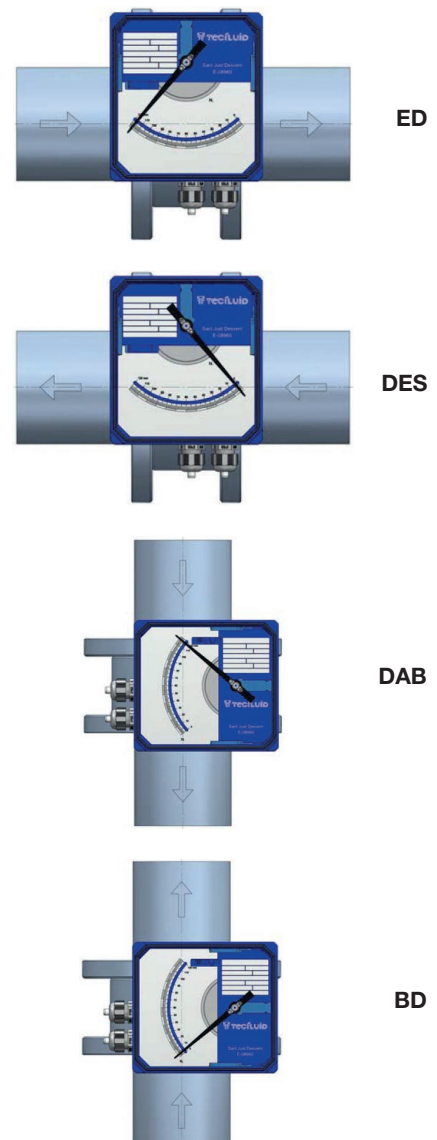


MATERIALS PARTS DESCRIPTION

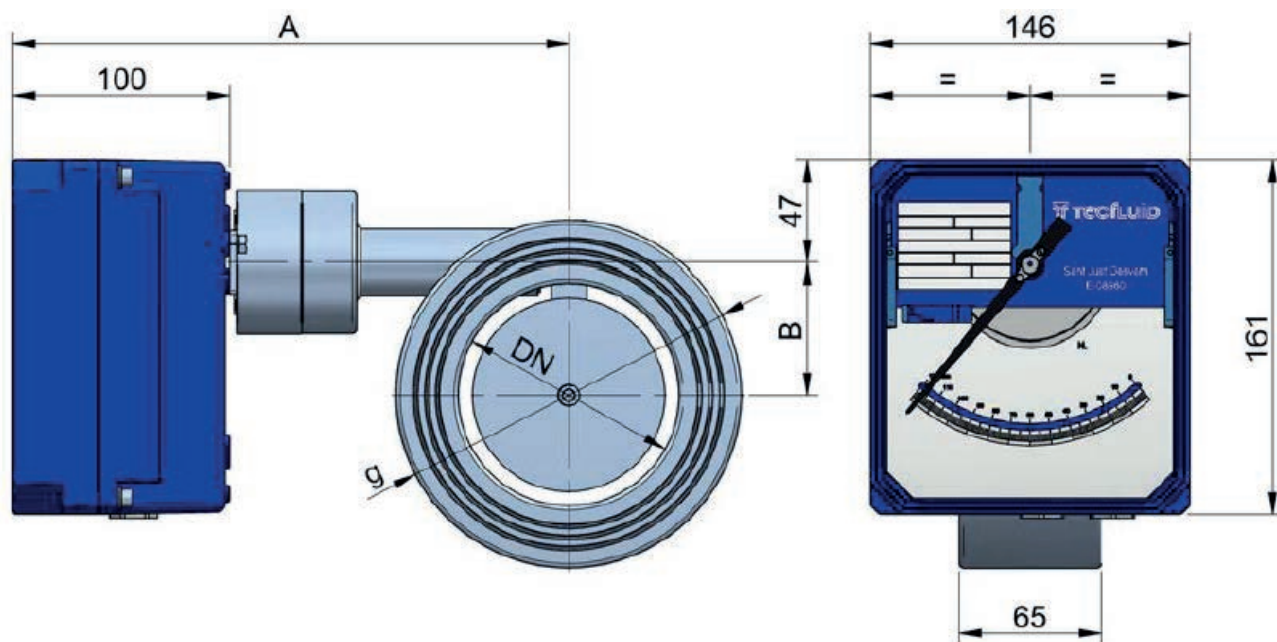
Item	Description	Version	
		Steel, coated	Stainless steel 1.4404
		Material	
1	Display housing:	Aluminum, coated	
2	Cable gland M16: + gasket:	Polyamide NBR	
3	Gasket:	NBR	
4	Display cover:	Polycarbonate ⁽³⁾	
5	Lock washer:	EN 1.4404 (AISI 316L)	
6	Magnet group:	EN 1.4404 (AISI 316L) + Alnico, coated	
7	Gasket:	NBR	
8	Bearing:	PTFE / Bronze	
9	Shaft support disc:	EN 1.4401 (AISI 316)	
10	Spring:	EN 1.4310 (AISI 304)	
11	Shaft:	EN 1.4401 (AISI 316)	
12	Bearing:	PTFE / Bronze	
13	Target disc stop:	EN 1.4404 (AISI 316L)	
14	Target disc:	EN 1.4404 (AISI 316L)	
15	Device body:	Steel	EN 1.4404
		Polyamide coated	(AISI 316L)

⁽³⁾ UV resistant

FLOW DIRECTIONS



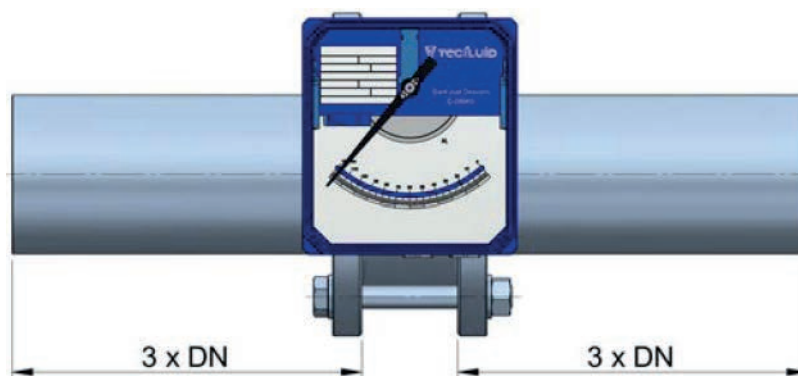
TECHNICAL DRAWING



SUMMARY OF TYPES

Type	Overall dimensions (mm)				Weight approx. [kg]
	DN	g	B	A	
DP-65	40	88	28	250	5
DP-65	50	102	33	250	6
DP-65	65	122	40	250	7
DP-65	80	138	50	250	8
DP-65	100	158	60	250	10
DP-65	125	188	70	280	12
DP-65	150	212	78	280	14
DP-65	200	268	90	320	20
DP-65	250	320	102	350	29
DP-65	300	370	115	370	35

INSTALLATION



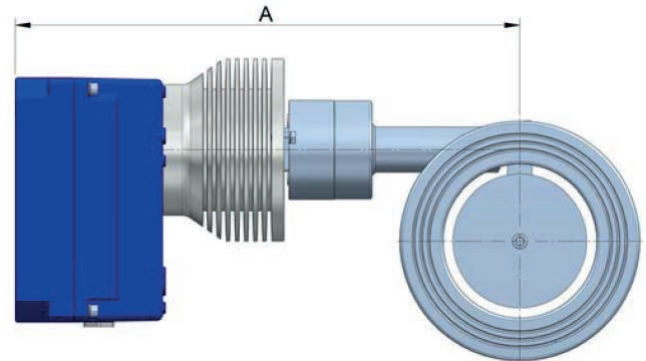
ACCESSORIES

Thermal separator

DN	40	50	65	80	100	125	150	200	250	300
A	325	325	325	325	325	355	355	395	425	443

- Standard in aluminum, optional in EN 1.4404 (AISI 316L)
- For employment with fluids at high and low temperatures
- Only with device body made of steel (uncoated) or stainless steel 1.4404 (AISI 316L)
- With electronics:

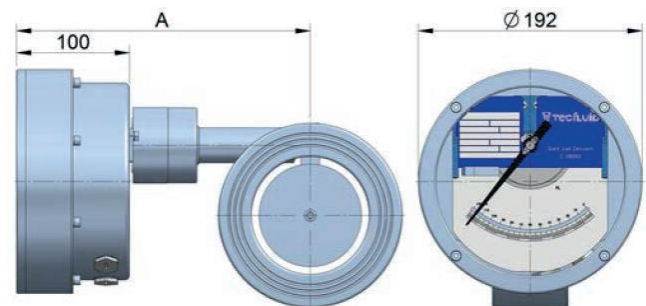
DN-40 – DN-100	400 °C
DN-125 – DN-150	320 °C
DN-200 – DN-300	280 °C
- Without electronics: DN-40: – DN-300 400 °C
- Reference ambient temperature: 20°C



Stainless steel housing

DN	40	50	65	80	100	125	150	200	250	300
A	325	325	325	325	325	355	355	395	425	443

- Specifically for use in sanitary or sterile installations, saline atmospheres (offshore platforms), etc.
- All stainless steel construction EN 1.4404 (AISI 316L), with glass display cover
- Can be fitted with standard limit switches and TH transmitters
- Ingress protection: IP67



LIMIT SWITCHES

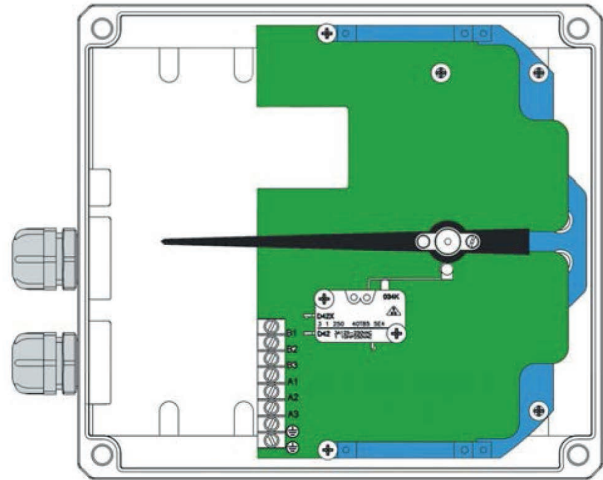
Adjustable limit switch (microswitch) DP-AMM



Electrical microswitch mounted inside the indicator housing

- DP-AMM1: 1 adjustable limit switch
- DP-AMM2: 2 adjustable limit switches
- Ratings: 3(1) A, 250 V (VDE/CEE)
- Hysteresis: $\pm 10\%$ of full scale
- Ambient temperature: $-25\text{ }^{\circ}\text{C} - 80\text{ }^{\circ}\text{C}$
- Mechanical life: 10^7 operations
- ATEX certificate: Ex ia IIC T6

Gold plated contacts on request



Adjustable inductive limit switch DP-AMD

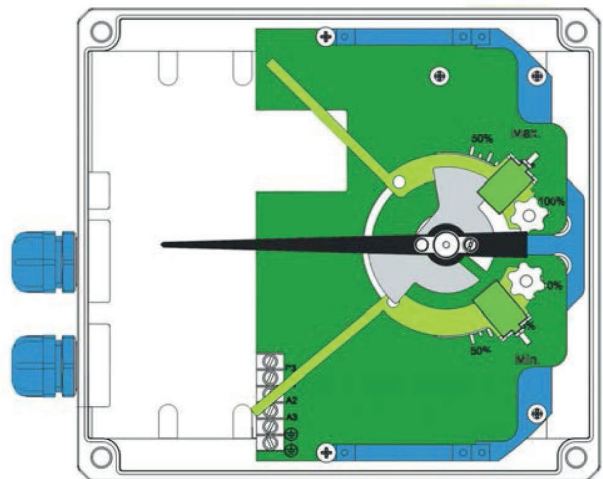


Inductive proximity switch, 3.5 mm (slot type)
NAMUR (EN 60947-5-6) activated by vane, mounted inside the indicator housing

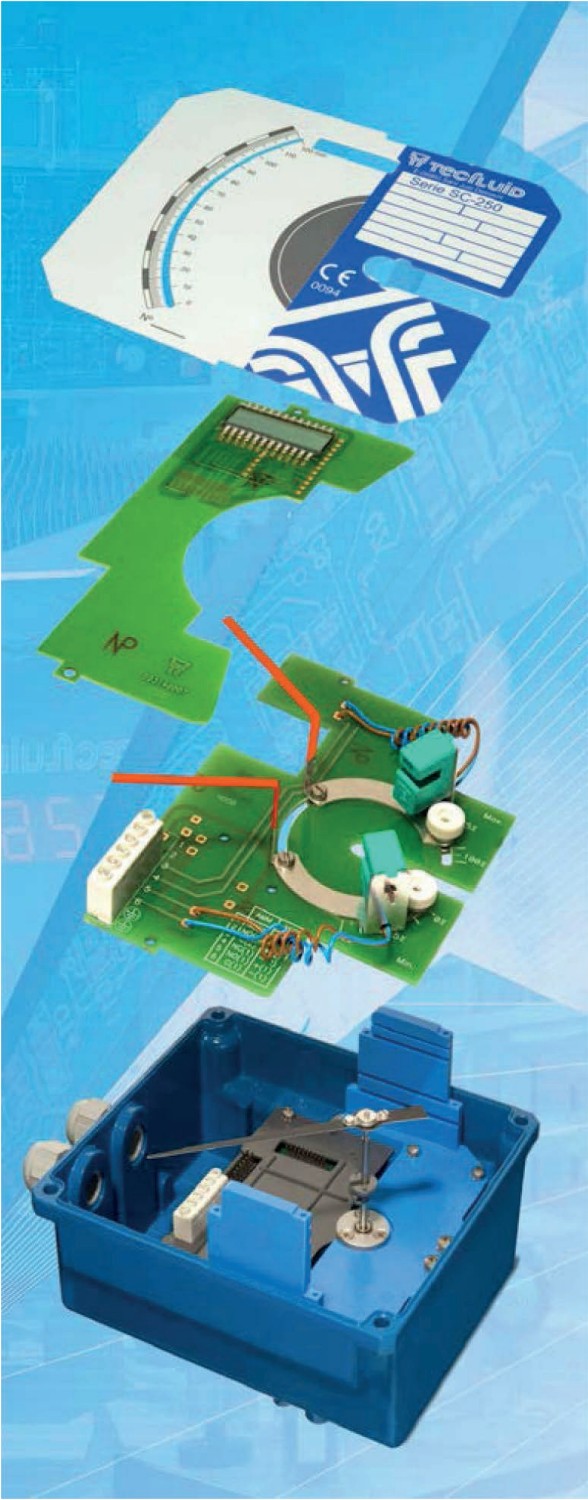
- DP-AMD1: 1 adjustable limit switch
- DP-AMD2: 2 adjustable limit switches
- Power supply: 8 VDC (via amplifier)
- Ambient temperature: $-25\text{ }^{\circ}\text{C} - 70\text{ }^{\circ}\text{C}$
- ATEX certificate: Ex ia IIC T6

Amplifier (on request)

- NAMUR (EN 60947-5-6) for 1 or 2 inductive proximity switches
- Power supply: 24 ... 253 VAC, 50 - 60 Hz
24 ... 300 VDC
- Input: NAMUR Ex ia IIC
- Output: 1 or 2 relay contacts
- Output rating: 2 A / 250 VAC / 100 VA
1 A / 24 VDC
- Ambient temperature: $-20\text{ }^{\circ}\text{C} - 60\text{ }^{\circ}\text{C}$



Modular housing



TRANSMITTERS AND TOTALIZERS

Transmitter TH7

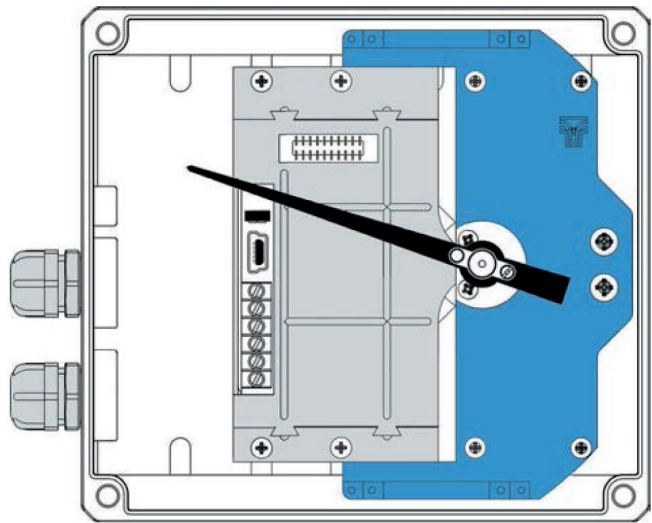
The TH7 electronic transmitters provide an analog output proportional to the flow rate and a digital output selectable either as a pulse or an alarm output (except for the Ex versions). The TH7 can also include a display for volume totalization. The transmitter is based on the Hall-effect and is mounted inside the indicator housing.

- TH7 Transmitter
- TH7T Transmitter + totalizer

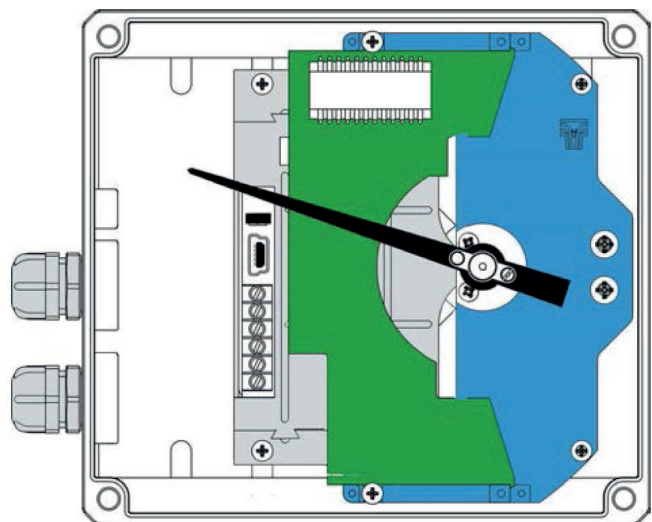
Technical data

- Power supply: 2-wire, 12 - 36 VDC
- Power consumption: 4 - 20 mA for 0 - 100% of scale
- Analog output: 4 - 20 mA
 - Accuracy: < 0,6% of the magnet position
 - Maximum load in 4 – 20mA loop: 1100 Ω (with 36 VDC power supply)
- Digital output: Potential-free N-channel MOSFET
 - I_{max} : 200 mA for either pulse or alarm output
 - Pulse output:
 - max. frequency: 6 Hz
 - Pulse duration: approx. 62.5 ms
 - Alarm output: adjustable on a scale value
 - Programmable by means of Winsmeter TH7 software
- Totalizer: 8 digits, 4.5 mm high
 - Reset by potential-free contact
- Ambient temperature: -5 °C - 70 °C
- Easy programming by means of Winsmeter TH7 software
- **Download: www.tecfluid.com**

TH7



TH7T



ATEX version (Ex ia IIC T4 or T6)



TH7T Ex

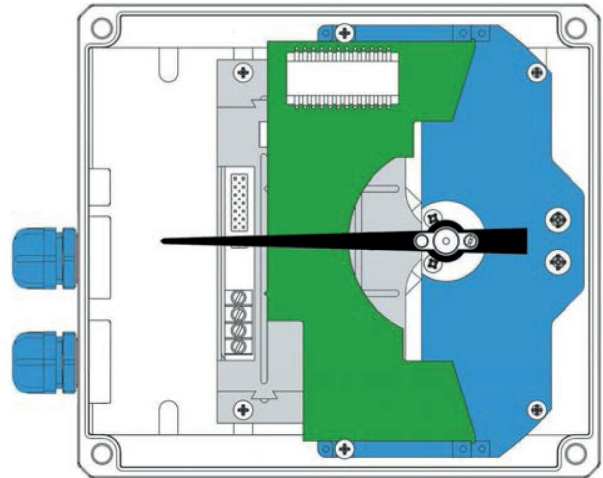
Technical data

- ATEX certificate: Ex II 1 GD
- Power supply: 2-wire, 14 - 30 VDC
- Power consumption: 4 - 20 mA for 0 - 100% of scale

- Analog output: 4 - 20 mA
 - Accuracy: < 0,6% of the magnet position
 - Maximum load in 4 - 20mA loop: 900 Ω
(with 30 VDC power supply)

- Totalizer: 8 digits, 4.5 mm high
Reset by potential-free contact

- Ambient temperature: -5 °C - 40 °C



The limit switches AMM or AMD and electronic transmitters TH7 or TH7T can be mounted together in the same housing.

The TH7 Ex and TH7T Ex transmitters belong to Equipment Group II. They are intended for use in potentially explosive atmospheres, except in mining.



MASTERPIECES MADE IN GERMANY

DP-65 10 0001 12-15 EM

Meister Strömungstechnik GmbH • Im Gewerbegebiet 2 • 63831 Wiesen / Germany
Tel. +49 (0) 6096 9720-0 • Fax +49 (0) 6096 9720-30 • sales@meister-flow.com • www.meister-flow.com
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